## REMARKS

Claims 1-24 are all the claims pending in the application. The Examiner rejects claims 1-4, 9, 10-14, and 21-23 under 35 U.S.C. §103(a) as being unpatentable over Mroczkowski ("Implementation of the block cipher Rijndael using Altera FPGA," May 2000) in view of Luyster (US 6,182,213). The Examiner further rejects claims 5-8 under 35 U.S.C. §103(a) as being unpatentable over Mroczkowski in view of Luyster and futher in view of Daemen et al. ("AES Proposal: Rijndael," March 1999).

### § 103(a) Rejection

Claims 1-4, 9, 10-14, and 21-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mroczkowski in view of Luyster, and claims 5-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mroczkowski in view of Luyster and further in view of Daemen.

To establish a *prima facie* case of obviousness, three basic criteria must be met one of which is that the prior art reference (or references when combined) must teach or suggest all the claim limitations.[1]

### Claim 1

Regarding independent Claim 1, independent Claim 1 recites an apparatus for encrypting/decrypting a real-time input stream comprising a control unit, a key schedule unit, and a block round unit wherein the control unit receives a data stream of byte units and converts the data stream into block data.

The Examiner states that the control unit receiving a data stream of byte units and converting the data stream into block data was not disclosed in Mroczkowski, but was disclosed in Luyster and directs application attention to item 50 shown in Fig. 3. A careful reading of

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[1] See, MPEP 2143.

Luyster indicates, "[a] first block 50 contains a n-bit cipher input[2]" such as a 128-bit input block.[3] Luyster does not disclose any logical block or structure that converts a real-time data stream into data blocks such as data blocks containing 128 bits. Luyster just assumes that the data is presented to the first block 50 in units of 128 bits for further processing. The present invention as claimed in Claim 1 recites "a control unit receiving a data stream of byte units, converting the data stream into block data." The invention of Claim 1 recites limitations that are not disclosed either by Mroczkowski or by Luyster, therefore Mroczkowski in view of Luyster cannot teach or suggest all the claim limitation of Claim 1.

Because, neither Mroczkowski nor Luyster, nor the combination thereof teaches all the limitations of Claim 1, the prima facie case of obviousness fails, and Claim 1 is allowable. Applicant respectfully requests reconsideration and withdrawal of the rejection.

Claim 10

Independent Claim 10, like Claim 1, recites a control unit receiving a real-time data stream in a first format and converting the data stream into a second format. Luyster's block 50 does not convert a stream of data from one format to another format. Block 50 divides the n-bit cipher input that is already present into x round segments, each round segment containing n divided by x bits.[4] Luyster is silent regarding the format of the data in block 50 or in the round segments, and does not teach that the format of the data in block 50 is different than the format of the data in the round segments. The limitation of converting the input data from one format to another is missing from Luyster's bock 50.

Because, neither Mroczkowski nor Luyster, nor the combination thereof teaches all the limitations of Claim 10, the prima facie case of obviousness fails, and Claim 10 is allowable. Applicant respectfully requests reconsideration and withdrawal of the rejection.

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[2] See, Luyster, col. 18, line 54.

[3] See, Luyster, col. 18, line 63.

[4] See, Luyster, col. 18, lines 54-67.

Claim 22

Independent Claim 22 is similar to independent Claim 10 and requires the conversion of a data stream of a first format into a second format. As in the analysis of Claim 10, Luyster does not teach this limitation.

Because, neither Mroczkowski nor Luyster, nor the combination thereof teaches all the limitations of Claim 22, the prima facie case of obviousness fails, and Claim 22 is allowable. Applicant respectfully requests reconsideration and withdrawal of the rejection.

Claims 2-9, 11-21, and 23-24

Dependent Claims 2-9, 11-21, and 23-24 depend from allowable independent claims 1,10, and 22 and are therefore also allowable. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)."[5]

Applicant respectfully asserts that dependent Claims 2-9, 11-21, and 23-24 are allowable as well and requests reconsideration and withdrawal of the rejection.

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[5] See, MPEP 2143.03.

## CONCLUSION

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
Lee, Hong, Degerman, Kang & Schmadeka

Date: October 21, 2005         By: _____
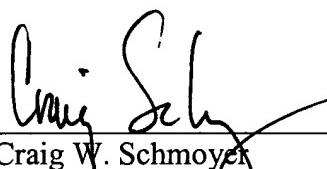
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